



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,184	11/13/2003	Gerald A. Case	JCA1-H23	9388

7590 03/20/2006

Karl M. Steins  
Steins & Associates  
Suite 120  
2333 Camino del Rio South  
San Diego, CA 92108

EXAMINER

TALBOT, MICHAEL

ART UNIT

PAPER NUMBER

3722

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/714,184

Applicant(s)

CASE, GERALD A.

Examiner

Michael W. Talbot

Art Unit

3722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 6-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Specification*

1. The objection to the disclosure has been withdrawn due to Applicant's amendment filed 25 October 2005.

### *Claim Objections*

2. The objection to the claims has been withdrawn due to Applicant's amendment filed 25 October 2005.

### *Claim Rejections - 35 USC § 112*

3. The rejection to the claims under second paragraph of 35 U.S.C. 112 has been withdrawn due to Applicant's amendment filed 25 October 2005.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Timp et al. '835. Timp et al. '835 shows in Figure 1 a punch assembly (10) comprising a mandrel (14) having an elongated shaft (at 22) with a generally constant diameter over its entire length, a distal end (at 22) and a disk-shaped head (at 42) opposite the distal end. Timp et al. '835 shows the disk-shaped head defining an outer diameter and a substantially flat face (at 12) defined by a threaded bore (at 40) formed therein. Timp et al. '835 shows a punch (16) comprising a base end (at 12) defining a substantially flat face having an aperture (at 40) formed there through the base end and a cutting end (at 17) terminating in at least one pointed tip (edge of 16). Timp et al. '835 shows an attachment means comprising a bolt (40) extending

Art Unit: 3722

through the aperture of the base end of the punch and threadedly engaging the thread bore of the flat face of the disk-shaped head. Timp et al. '835 further shows the punch defining a generally cylindrical shape having a circular cross-section defining an outer diameter being less than the disk-shaped head diameter.

6. Claims 9-11 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Ducret '063. Ducret '063 shows in Figures 1-3 a method for creating holes in sheets of metal (col. 1, lines 5-13) comprising obtaining a powder-actuated tool having a receiver (16) and attaching a punch assembly (18,19,20,21,23,24,59) to the receiver. Ducret '063 shows the punch assembly comprising a mandrel (18,19,20,21) having a shaft (21) and a head (23) defining an outer diameter and a face, a generally hollow cylindrical-shaped punch (59) defining a closed base (flat end) and an open cutting end terminating in a pair of opposing arcuate portions in alternate space relation with a pair of tip portions, and attachment means (threaded end 24 of shaft 21) for attaching the punch to the mandrel. Ducret '063 shows placing the at least one tip against the sheet (JB) and activating the powder-actuating tool to drive the punch through the sheet thereby forming a hole without rotation (col. 4, lines 12-30).

7. Claims 1,14-17,19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Loerwald '367. Loerwald '367 shows in Figures 1-4 a punch assembly (10) for punching holes in a metal sheet (col. 2, lines 38-41) comprising a mandrel (20,22) having an elongated shaft (20) with a generally constant diameter over its entire length, a distal end (at 22) and a disk-shaped head (at 28) opposite the distal end. Loerwald '367 shows the disk-shaped head defining an outer diameter and a substantially flat face (at 28) defined by a threaded bore (Fig. 3) formed therein. Loerwald '367 shows a generally cylindrical shaped punch (12) comprising a base end (28) defining a substantially flat face having an aperture (30) formed there through the base end and a cutting end (36) terminating in a pair of opposing arcuate portions (42) in

Art Unit: 3722

alternate space relation with a pair of tip portions (40). Loerwald '367 shows an attachment means comprising a bolt (32) extending through the aperture (30) of the base end of the punch and threadedly engaging the thread bore of the flat face of the disk-shaped head (Fig. 3).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3,4 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Timp et al. '835 in view of Adleman et al. '722. Timp et al. '835 lacks the punch defining a pair of opposing arcuate portions in alternate space relation with a pair of tip portions. Adleman et al. '722 shows in Figures 1-5 a punch (10) with a pair of opposing arcuate portions (20a,22a) with a pair of pointed tips ( $P_1, P_2$ ) in alternating space relation with each other. In view of this teaching of Adleman et al. '722, it would have been obvious to one of ordinary skill in the art to replace the punch of Timp et al. '835 with another well-known punch taught by Adleman et al. '722 to provide for a two-piece cutting operation from a wide range of cutting materials thus providing easy disposal and extending the useful life of the punch due to the efficient piercing then cutting arrangement caused by the unique pyramidal cutting surfaces.

10. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ducret '063. Ducret '063 does not disclose expressly the mandrel further defining a threaded bore in the face. Instead, Ducret '063 indicates that the face has an outer threaded surface. At the time of the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to select "an outer threaded surface" because Applicant has not disclosed that the "threaded bore" provides an advantage, is used for a particular purpose, or

Art Unit: 3722

solves a stated problem. One of ordinary skill in the art, furthermore, would have expected the punch assembly of Ducret '063, and Applicant's punch assembly to perform equally well with either the outer threaded face surface taught by Ducret '063 or the claimed "threaded bore" because both mandrel/punch combinations provide the desired connection there between to perform the punching operation without movement or loss of the punch member.

Furthermore, Applicant does not provide any criticality or unexpected results for the "threaded bore formed in said face" as recited in claim 12.

11. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ducret '063 in view of Timp et al. '835. Ducret '063 discloses the claimed invention except for the mandrel head being larger in diameter than the punch base end diameter. Timp et al. '835 teaches that it is known to have a mandrel (14) head (at 42) larger in diameter than the punch (16) base end (at 12) diameter. In view of this teaching of Timp et al. '835, it would have been obvious to one of ordinary skill in the art to modify the punch assembly of Ducret '063 to make the mandrel head diameter larger than the punch base end diameter taught by Timp et al. '835 to provide a greater contact surface area (28) below the base end of the punch (59) thus providing for a greater driving force applied to the entire base end surface area, eliminating potential stripping of the threaded engagement due to excessive or repetitive forces, thus extending the longevity of the punch assembly.

The phrase "whereby said diameter of said mandrel prevents said punch assembly from passing through said hole" does not further limit the claim and is merely a functional/intended use statement not defining any specific structure. It should be noted that it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. The only requirement is that the prior art reference be capable of said

Art Unit: 3722

intended use. See MPEP 2114. In this case, Ducret '063 in view of Timp et al. '835 is fully capable of preventing said punch assembly from passing through said hole.

12. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Loerwald '367 in view of Timp et al. '835. Loerwald '367 discloses the claimed invention except for the mandrel head being larger in diameter than the punch base end diameter. Timp et al. '835 teaches that it is known to have a mandrel (14) head (at 42) larger in diameter than the punch (16) base end (at 12) diameter. In view of this teaching of Timp et al. '835, it would have been obvious to one of ordinary skill in the art to make the mandrel head diameter larger than the punch base end diameter to enhance the integrity and durability of the contact surface area (28) being contacted by the driver (44) thus extending the longevity of the punch assembly.


**Conclusion**

13. Any inquiry concerning the content of this communication from the examiner should be directed to Michael W. Talbot, whose telephone number is 571-272-4481. The examiner's office hours are typically 8:30am until 5:00pm, Monday through Friday. The examiner's supervisor, Mr. Boyer D. Ashley, may be reached at 571-272-4502.

In order to reduce pendency and avoid potential delays, group 3720 is encouraging FAXing of responses to Office Actions directly into the Group at FAX number 571-273-8300. This practice may be used for filling papers not requiring a fee. It may also be used for filing papers, which require a fee, by applicants who authorize charges to a USPTO deposit account. Please identify Examiner Michael W. Talbot of Art Unit 3722 at the top of your cover sheet.



MWT  
Examiner  
9 March 2006



BOYER D. ASHLEY  
SUPERVISORY PATENT EXAMINER